


ORDER FOR SUPPLIES OR SERVICES

PAGE OF PAGES

1

6

IMPORTANT: Mark all packages and papers with contract and/or order numbers.

1. DATE OF ORDER 03/29/2018		2. CONTRACT NO. (If any) EP-C-17-046		6. SHIP TO: a. NAME OF CONSIGNEE AWPB-MB				
3. ORDER NO. 0004		4. REQUISITION/REFERENCE NO. See Schedule						
5. ISSUING OFFICE (Address correspondence to) CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268				b. STREET ADDRESS US EPA-OW-OWOW-AWPD-MB 1200 PENNSYLVANIA AVE., NW MC-4503-T				
				c. CITY WASHINGTON		d. STATE DC	e. ZIP CODE 20460	
7. TO: George Townsend				f. SHIP VIA				
a. NAME OF CONTRACTOR TETRA TECH, INC.				8. TYPE OF ORDER				
b. COMPANY NAME				<input type="checkbox"/> a. PURCHASE		<input checked="" type="checkbox"/> b. DELIVERY		
c. STREET ADDRESS 10306 EATON PL STE 340				REFERENCE YOUR:		Except for billing instructions on the reverse, this delivery order is subject to instructions contained on this side only of this form and is issued subject to the terms and conditions of the above-numbered contract.		
d. CITY FAIRFAX				e. STATE VA				f. ZIP CODE 22030
9. ACCOUNTING AND APPROPRIATION DATA See Schedule				10. REQUISITIONING OFFICE CPOD				
11. BUSINESS CLASSIFICATION (Check appropriate box(es)) <input type="checkbox"/> a. SMALL <input checked="" type="checkbox"/> b. OTHER THAN SMALL <input type="checkbox"/> c. DISADVANTAGED <input type="checkbox"/> d. WOMEN-OWNED <input type="checkbox"/> e. HUBZone <input type="checkbox"/> f. SERVICE-DISABLED VETERAN-OWNED <input type="checkbox"/> g. WOMEN-OWNED SMALL BUSINESS (WOSB) ELIGIBLE UNDER THE WOSB PROGRAM <input type="checkbox"/> h. EDWOSB							12. F.O.B. POINT Destination	
13. PLACE OF		14. GOVERNMENT B/L NO.		15. DELIVER TO F.O.B. POINT ON OR BEFORE (Date) 180 Days After Award		16. DISCOUNT TERMS		
a. INSPECTION Destination		b. ACCEPTANCE Destination						
17. SCHEDULE (See reverse for Rejections)								
ITEM NO. (a)	SUPPLIES OR SERVICES (b)			QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
	DUNS Number: 198549560 TOCOR: Jacques Oliliver Max Expire Date: 09/30/2022 Continued ...							
18. SHIPPING POINT		19. GROSS SHIPPING WEIGHT		20. INVOICE NO.				17(h) TOTAL (Cont. pages)
21. MAIL INVOICE TO:								
a. NAME RTP Finance Center						\$829,853.00		
b. STREET ADDRESS (or P.O. Box) US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts								17(i) GRAND TOTAL
c. CITY Durham		d. STATE NC	e. ZIP CODE 27711			\$829,853.00		
22. UNITED STATES OF AMERICA BY (Signature) 				23. NAME (Typed) Angela Lower TITLE: CONTRACTING/ORDERING OFFICER				

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER
03/29/2018

CONTRACT NO.
EP-C-17-046

ORDER NO.
0004

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0001	Admin Office: CPOD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268 Period of Performance: 04/01/2018 to 09/30/2018 BASE PERIOD: TSWAP II-N-STEPS in accordance with PWS LOE: 7000 Requisition No: PR-OW-17-00508, PR-OW-18-00208 Accounting Info: 17-18-B-28H-202BD4X20-2505-1728CHH034- 001 BFY: 17 EFY: 18 Fund: B Budget Org: 28H Program (PRC): 202BD4X20 Budget (BOC): 2505 DCN - Line ID: 1728CHH034-001 Funding Flag: Partial Funded: \$317,272.74 Accounting Info: 18-19-B-28H-000BD4X20-2505-1828CHH014- 001 BFY: 18 EFY: 19 Fund: B Budget Org: 28H Program (PRC): 000BD4X20 Budget (BOC): 2505 DCN - Line ID: 1828CHH014-001 Funding Flag: Partial Funded: \$100,000.00				829,853.00	
0002	OPTION PERIOD I: TSWAP II-N-STEPS in accordance with PWS LOE: 16000 (Option Line Item) 180 Days After Award					
0003	OPTION PERIOD II: TSWAP II-N-STEPS in accordance with the PWS Continued ...					
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$829,853.00	

ORDER FOR SUPPLIES OR SERVICES
SCHEDULE - CONTINUATION

PAGE NO

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IMPORTANT: Mark all packages and papers with contract and/or order numbers.

DATE OF ORDER CONTRACT NO.

03/29/2018 EP-C-17-046

ORDER NO.

0004

ITEM NO. (a)	SUPPLIES/SERVICES (b)	QUANTITY ORDERED (c)	UNIT (d)	UNIT PRICE (e)	AMOUNT (f)	QUANTITY ACCEPTED (g)
0004	LOE: 16000 (Option Line Item) 02/04/2019 OPTION PERIOD III: TSWAP II-N-STEPS in accordance with the PWS LOE: 16000 (Option Line Item) 01/03/2019					
0005	OPTION PERIOD IV: TSWAP II-N-STEPS in accordance with the PWS LOE: 16000 (Option Line Item) 02/03/2022					
TOTAL CARRIED FORWARD TO 1ST PAGE (ITEM 17(H))					\$0.00	

1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

The Government has the option to extend the term of this contract for four (4) additional period(s). If more than 60 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 60 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 60-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	04/01/2018	09/30/2018
Option Period 1	10/01/2018	09/30/2019
Option Period 2	10/01/2019	09/30/2020
Option Period 3	10/01/2020	09/30/2021
Option Period 4	10/01/2021	09/30/2022

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	7,000
Option Period 1	16,000
Option Period 2	16,000
Option Period 3	16,000
Option Period 4	16,000

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Option Period 1	(b)(4)	(b)(4)	\$1,873,129
Option Period 2			\$1,910,600
Option Period 3			\$1,948,108
Option Period 4			\$1,985,108

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

EPAAR 1552.237-72 KEY PERSONNEL. (APR 1984)

(a) The Contractor shall assign to this contract the following key personnel:

Program Manager
Aquatic Regulatory Scientist
Database and Geospatial Data Manager
Quality Assurance Officer

(b)(4)

(b) During the first ninety (90) days of performance, the Contractor shall make no substitutions of key personnel unless the substitution is necessitated by illness, death, or termination of employment. The

Contractor shall notify the Contracting Officer within 15 calendar days after the occurrence of any of these events and provide the information required by paragraph (c) of this clause. After the initial 90-day period, the Contractor shall submit the information required by paragraph (c) to the Contracting Officer at least 15 days prior to making any permanent substitutions.

(c) The Contractor shall provide a detailed explanation of the circumstances necessitating the proposed substitutions, complete resumes for the proposed substitutes, and any additional information requested by the Contracting Officer. Proposed substitutes should have comparable qualifications to those of the persons being replaced. The Contracting Officer will notify the Contractor within 15 calendar days after receipt of all required information of the decision on substitutions. This clause will be modified to reflect any approved changes of key personnel.

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through 06/15/2018

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

Base Period (4/1/2018 -09/30/2018)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Task Order Award (Base Period)	(b)(4)		\$417,272.47
Total Funded			\$417,272.47
Total Task Order			\$829,853.00
Balance Unfunded			\$412,580.53

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is \$829,853

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Jacques Oliver, oliver.jacques@epa.gov

Alternate Task Order COR (Alt TOCOR): Damon Highsmith, Highsmith.damon@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Katie Rechenberg, US EPA. Cincinnati Procurement Operations Division, NWD-001, Cincinnati, Ohio 45268

Rechenberg.kathleen@epa.gov

**PERFORMANCE WORK STATEMENT
TSAWP II CONTRACT
SOLICITATION TASK ORDER PR-OW-18-00117**

A: BACKGROUND

EPA's National Nutrient Criteria Program's principal mission is to ensure scientifically-defensible water quality criteria that protect the nation's waters from nutrient pollution and its effects. The Clean Water Act's (CWA) water quality standards (WQS) statutes, and their implementing regulations, serve as the primary programmatic drivers for the National Nutrient Criteria Program. The program's principal mission is to derive scientifically-defensible regulatory limits, known as numeric nutrient criteria, which will protect the nation's waters from the effects of nutrient pollution (i.e., excess nitrogen and phosphorus). Numeric nutrient criteria become legally enforceable once adopted into a state's water quality standards and are effective tools to reducing nutrient pollution.

This task order is intended to support the program's scientific activities in the area of numeric nutrient criteria development. These activities are national in scope and are designed to support state water quality agencies as well as enhance the work of other partners and stakeholders who participate in numeric nutrient criteria development. The program's activities are focused on technical and scientific aspects of numeric nutrient criteria development, many of which are reflected in this task order. Activities include data organization, data analysis, peer review, modeling, review of scientific literature, technical meetings, science communication, and technical document preparation. This task order is designed to provide technical capacity in each of these program activities. Key personnel associated with this task order shall include: Program manager, aquatic regulatory scientist, database and geospatial data manager, and a quality assurance officer.

B: TASKS

Inventory of Tasks:

Task 1	Scoping Meeting
Task 2	Data Quality Act and Information Quality System Requirements
Task 3	Progress and Financial Reports
Task 4	Online Technical Support Center
Task 5	Technical Consultations
Task 6	Scientific Peer Review
Task 7	Exploratory Data Analysis
Task 8	Analysis of State Nutrient Criteria Packages
Task 9	Technical Outreach and Communication
Task 10	Technical Meeting Support
Task 11	Technical Support to the National Nutrient Criteria Program
Task 12	Technical Support for Federal Rules for Numeric Nutrient Criteria

Task 1 Scoping Meeting

The Contractor shall participate in a kickoff meeting, within fourteen (14) days after award, with the EPA Task Order Contracting Officer Representative (TOCOR) to discuss the specific task deliverables and to discuss the following: points of contact, roles and responsibilities, quality assurance protocols, timelines, the schedule of benchmarks, milestones and deliverables, establish dates and times for monthly calls and general task order administrative information.

Task 2 Data Quality Act and Information Quality System Requirements: TSAWP II Quality Management Plan and Task Order Quality Assurance Project Plan (QAPP)

The Data Quality Act (also known as the Information Quality Act) requires EPA to ensure that influential information disseminated by the Agency is sufficiently transparent in terms of data and methods of analysis that the information is capable of being substantially reproduced. To support compliance with these data transparency/ data reproducibility requirements, EPA may include quality assurance project plans (QAPPs) and deliverables prepared by the contractor as part of any rulemaking record documentation to be made available to the public. The contractor may claim information in QAPPs as confidential; if the contractor chooses to do so, the contractor shall submit a sanitized (i.e., public) version and an unsanitized (i.e., confidential) version at the time the QAPP is submitted for approval by EPA. The sanitized version shall be included in the public docket for the applicable rulemaking (or other docket record), and the unsanitized version shall be included in a non-public (i.e., confidential) portion of the docket (or record).

Information contained in the approved QAPP and other documents prepared by the contractor for dissemination by EPA shall be transparent and reproducible and meet the requirements of the Data Quality Act for influential information. EPA's *Guidelines for Ensuring and Maximizing the Quality, Objectivity, Utility, and Integrity, of Information Disseminated by the Environmental Protection Agency* (EPA/260R-02-008, October 2002), referred to as "EPA's Information Quality Guidelines," describe EPA procedures for meeting Data Quality Act requirements. Section 6.3 of EPA's Information Quality Guidelines indicate that "especially rigorous robustness checks" should be applied in circumstances where quality-related information cannot be disclosed due to confidentiality issues. Where applicable, the contractors should indicate which results were obtained using the tools (e.g., standard operating procedures, checklists, and guidelines) that the contractor designates as confidential so that the TOCOR can easily identify the areas that shall require rigorous robustness checks and document that those checks have been performed. At the discretion of the TOCOR, the contractors may be requested to prepare pre-dissemination review checklist as described in Section 5.5, Information Quality Guidelines, of the Office of Water Quality Management Plan, February 2009 (or as updated). If this is required, the TOCOR shall notify the contractor through written technical direction.

The task order does not require the collection of primary data. If it is determined during the data evaluation effort and after consultation with the TOCOR that the collection of primary data is required for the task order, the contractor shall develop a separate field-sampling QAPP or

QAPPs for collecting primary data. Primary data collection will not proceed until the QAPP(s) is(are) approved.

The contractor shall adhere to its Quality Management Plan (QMP) that was developed for the TSAWP II contract. The QMP documents how the organization structures its quality system and describes its quality policies and procedures, criteria for and areas of application, and roles, responsibilities, and authorities. It also describes an organization's policies and procedures for implementing and assessing the effectiveness of the quality system.

EPA's Quality Policy requires that an approved programmatic Quality Assurance Project Plan (QAPP) be in place before commencing any work that involves the collection, generation, evaluation, analysis, or use of environmental data/information (hereafter secondary data). The work to be performed by the contractor under this task order involves such activities. Pursuant to this requirement, the contractor shall develop a QAPP or implement an equivalent existing QAPP in support of the use of secondary data. The QAPP shall describe the quality assurance procedures associated with the acquisition, analysis, and interpretation of secondary data associated with any tasks contained within this task order. If an equivalent existing QAPP is to be used the contractor shall provide a "crosswalk" memo that characterizes the applicability of the equivalent existing QAPP to the individual tasks contained within this task order. Note that while the customized QMP documents an organization's *management system* for the environmental work to be performed under the TSAWP II contract, the programmatic QAPP documents the *technical QA/QC elements* needed to support the environmental work that will be performed under the task order.

The contractor shall immediately notify the TOCOR of any quality assurance (QA) problems encountered that may impact the performance of this task order, with recommendations for corrective action. The contractor also shall provide EPA with a report (coincident with the end of the option period) of QA-related activities performed during implementation of this task order. The QA reports shall identify QA activities performed to support implementation of this task order, problems encountered, deviations from the QAPP, and corrective actions taken. The contractor shall also furnish a Quality Assurance Report (QAR) at the time a final technical support document or other final document is provided. The QAR may be a section or chapter of the final document. The QAR will be submitted for review and approval by the TOCOR to document the contractor's QA/QC of the technical effort to produce a defensible deliverable.

The contractor shall notify the TOCOR at any time during the task order if changes to the QAPP are warranted (e.g., due to organizational changes, revised technical approaches). If the TOCOR determines revisions to the QAPP are necessary at any point during the period of performance, the contractor shall submit a revised QAPP, including the revision summary, within five (5) business days after receiving written technical direction to do so. When preparing this revised version of the QAPP, the contractor shall ensure that it is written in an active voice and shall include a version history page that summarizes changes made. The contractor also shall provide EPA with copies of any modified SOPs or checklists. EPA will review the revised QAPP and provide the contractor with written approval or comments. The contractor shall provide a revised QAPP, then a final QAPP that responds to EPA's written comments within five (5) business days of receipt of EPA's comments on the draft QAPP.

Task 3 Progress and Financial Reports

Written progress and financial reports shall be prepared weekly to the TOCOR to support the TOCOR's programmatic and financial oversight of projects tasked to the contractor. The contractor shall include a detailed break-out of LOE and costs for each task on a weekly basis. The contractor shall also include in the monthly progress reports, activities and issues by Task. Issues on Tasks which are moving very quickly, however, should be brought to the attention of the TOCOR in real time, not waiting for the monthly progress report. Verbal progress updates shall be scheduled with the TOCOR and the Branch Chief of the Ecological and Health Processes Branch, Health and Ecological Criteria Division/OST/OW, then followed up in writing to the TOCOR within five (5) business days. Given the pace of work and priority of the work within the Agency, weekly discussions are deemed necessary to ensure projects stays on track, thus eliminating the need for re-work, and ensuring efficient expenditure of Agency funds.

The EPA TOCOR will coordinate with the contractor to organize bi-weekly conference calls between EPA staff and the contractor's technical lead to discuss the status and progress of the work under this task order. The contractor shall participate in these bi-weekly calls. The frequency of the bi-weekly conference calls may be modified based on project status at the request of the contractor and only as approved by EPA. Generally, the contractor shall provide meeting summaries after the monthly calls within five (5) business days in draft form for the TOCOR to review, the TOCOR will provide any edits and/or comments on the meeting minutes; then final written meeting summaries shall be provided within five (5) business days after receipt of comments from the TOCOR.

The contractor shall notify the EPA TOCOR of any problems, delays or questions as soon as they arise, including immediate notification of any quality assurance issues, and task order delays.

In order to carry out this task, the contractor shall have a demonstrated record of maintaining and communicating, with high frequency, detailed financial records and controls associated with numerous ongoing tasks.

Task 4 Online Technical Support Center

The contractor shall support the ongoing development and maintenance of EPA's *N-STEPS Online* technical support center, which is a web-based technical support program that provides interactive support and feedback to states and Tribes on numeric nutrient criteria development. In order to carry out this task, the contractor shall have experience developing and employing user-centered design to construct interactive websites that communicate the elements of water quality criteria development.

Technical support topics that the contractor shall support may include, but are not limited to:

- Sample design and field monitoring techniques,
- Analytical chemistry specific to nutrient water quality (e.g., nitrogen, phosphorus, photosynthetic pigments, water transparency, etc.)

- Data management and data quality assurance,
- Conceptual model development,
- Current knowledge of the primary scientific literature in eutrophication science
- Statistical tools and empirical modeling,
- Defining magnitude, frequency, and duration of nutrient levels that exceed nutrient standards,
- Development of numeric nutrient criteria to implement narrative nutrient criteria,
- Interpretation of narrative nutrient criteria into wastewater permits for nitrogen and phosphorus.

In support of these topics, the contractor shall ensure continued availability of at least one (1) scientific expert in one or more of the each of the following disciplines:

- Nutrient biogeochemistry,
- Hydrology,
- Stream ecology,
- Lake ecology,
- Estuarine/coastal ecology,
- Microbial ecology,
- Phytoplankton ecology,
- Aquatic botany,
- Zooplankton ecology,
- Fisheries ecology,
- Bioassessment,
- Remote sensing (satellite and low altitude),
- SeaDAS workflow (see <https://seadas.gsfc.nasa.gov/>),
- Statistics (specifically expertise with R programming),
- Geospatial analysis (i.e., Geographic Information Systems, GIS), and
- Numerical modeling.

Additionally, the contractor shall have technical expertise in user-centered design, which is a design process that integrates target-audience participation and feedback during the planning, construction, and implementation of products and services. As part of the user-centered design approach, the contractor shall provide website design and management capabilities.

The contractor shall add and maintain new information generated by EPA or other organizations to *N-STEPS Online* upon receipt of request from the TOCOR. Examples include, but are not limited to, case studies provided by states, upcoming conferences and meetings related to nutrient science, new scientific articles or studies developed by other federal agencies or research organizations, and links to internally-produced web-based products or external products related to nutrient criteria development.

The contractor shall also respond to inquiries from the public regarding the technical topics outline above. The contractor shall coordinate with the TOCOR on the responses to ensure scientific, regulatory, and statutory accuracy. The contractor shall maintain internal

administration and tracking of submitted questions, technical responses, and other technical products produced by the contractor.

Task 5 Technical Consultations

The contractor shall provide technical support to states and Tribes through informal technical consultations with EPA. These activities will be identified to the contractor by the EPA TOCOR via email, teleconference, or web conference. These consultations may include, but are not limited to:

- Exchanging scientific literature,
- Reviewing and providing scientific feedback on a state's field sampling design, analytical chemical methods, and data analysis design;
- The construction and interpretation of models (empirical, numerical),
- Exploring assessment endpoints and conceptual models related to nutrient pollution,
- Facilitating peer-to-peer (i.e., state-to-state) transfer of scientific and technical information,
- The use of biological indicators in the development and implementation (i.e., monitoring and assessment) of numeric nutrient criteria,
- The evaluation of state bioassessment programs that seek to employ biological indicators as part of nutrient criteria, and
- Development of biological monitoring and assessment tools that may be used to detect nutrient pollution.

EPA anticipates that the contractor shall participate in and prepare for up to ten (10) consultations per year with EPA headquarters (HQ) nutrient criteria staff, EPA regional staff, and state water quality staff. Up to five (5) of these ten (10) meetings could occur in person with EPA regional and state water quality staff. Contractor participation in technical consultations with states shall include notification of the TOCOR and involve the participation by the relevant EPA HQ nutrient liaison(s). Technical consultations shall be informal and scientific in nature. The contractor shall maintain a written record of all consultations to be made available to the TOCOR upon request.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4. In addition, the contractor shall have firsthand experience consulting directly on federal, state, and Tribal water quality criteria for nutrients, and have firsthand experience supporting federal, state, and Tribal nutrient water quality criteria regulation development.

Task 6 Scientific Peer Review

The contractor shall provide up to ten (10) independent scientific peer reviews per year on behalf of states or Tribes who have developed draft or final numeric nutrient criteria packages. The contractor shall be provided a list of suggested peer reviewers, peer review materials, and peer

review questions by the EPA TOCOR or EPA HQ nutrient criteria liaisons. The contractor shall identify no more than five (5) peer reviewers from the list of peer reviewers submitted by EPA to conduct the peer review. The contractor shall ensure the peer reviewers are free of conflicts-of-interest pursuant to EPA's scientific peer review policies and guidelines (see EPA's Peer Review Handbook), document that the peer reviewers are free of conflicts-of-interest, provide the peer reviewers with the peer review materials and questions, and provide the EPA TOCOR or EPA HQ nutrient criteria liaisons with the peer reviews. The contractor shall inform the EPA TOCOR or EPA HQ nutrient criteria liaisons of the status and progress of the peer reviews and notify them if problems arise and/or if the contractor anticipates that a peer reviewer may miss a deadline. The contractor shall blind the names of the peer reviewers on the peer reviews prior to transmitting them to the EPA TOCOR or EPA HQ nutrient criteria liaisons. The contractor shall maintain the peer reviewer's anonymity to all non-EPA parties at all times unless the contractor has received specific permission from the peer reviewer to disclose his or her name and affiliation. The contractor shall ensure that all scientific peer reviews are conducted in accordance with EPA's peer review policies and guidelines published in EPA's *Peer Review Handbook*.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4.

Task 7 Exploratory Data Analysis

The contractor shall support in the development of numeric nutrient criteria for states and Tribes. The contractor shall provide technical support in the following areas:

- Conceptual model development,
- Data acquisition and management,
- Statistical data analysis,
- Geospatial data analysis,
- Data quality assessment and documentation,
- Model development (empirical, numerical), and
- Biological indicator assessments.

The contractor shall plan to analyze up to ten (10) nutrient data sets per year. These data sets will be provided by the EPA TOCOR and the EPA HQ nutrient criteria liaison. The contractor shall confer with the EPA TOCOR and the EPA HQ nutrient criteria liaison in terms of the scope and depth of the analysis. This may also involve the regional nutrient coordinator and representatives from the state. The contractor shall inform the EPA TOCOR and the EPA HQ nutrient criteria liaison of the status and progress of the data analysis and inform both if the contractor anticipates problems or delays associated with the analysis.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4. In addition, the contractor shall have firsthand experience working directly with federal, state, and Tribal water quality criteria for nutrients, specifically analyzing federal, state, and Tribal nutrient and nutrient-related water quality data.

Subtask 7A – Develop Data Analysis Plan

The contractor shall develop a phased review plan for each data set to be analyzed. The first phase of the review plan shall take place before the data is analyzed, and include a review of the data quality objectives (DQOs) of the state, and include the state's written description of the data quality in the context of those DQOs. Also the quality of the data set will be determined. If the data is not in a consistent format, and organized in such a way that it can be queried to answer the specific questions posed by the state, then the contractor shall specify what steps the state shall take in order to properly prepare or format the data. This will be incorporated into an analysis plan. The analysis plan shall specify what questions the data analysis is intended to answer, and what analytical approaches will be used. The completed analysis plan should be a document which will allow a third party to replicate the analysis conducted by the contractor. The analysis plan will be shared with the EPA Region and state submitting the data for mutual agreement. A conference call will be scheduled by the EPA TOCOR with the contractor, the regional nutrient coordinator, and a representative(s) of the state.

Subtask 7B – Analyze the Data and Report to State

Once mutual agreement has been reached between the EPA TOCOR, the regional nutrient coordinator, and the state representative(s), the contractor shall proceed with the analysis. The contractor shall analyze nutrient data for the relationship between nutrient pollution and biological responses in surface water. The contractor shall apply advanced statistical procedures to analyze the state data. The contractor shall calculate the strength of that relationship using the most up-to-date, and scientifically peer reviewed statistical techniques (e.g., published textbooks on statistics, primary scientific literature). The contractor shall prepare a report describing the results of the analysis and submit it to the EPA TOCOR for review. Upon completion of the analysis the contractor shall write the results into a brief report. The report shall describe:

- 1) question(s) that the analysis was intended to answer;
- 2) data that were provided to the contractor;
- 3) analytical methods that were used to analyze the data;
- 4) results of the analysis; and
- 5) contractor's interpretation of the results in the context of nutrient criteria development and recommendations to the State.

Subtask 7C – Develop Data Sets for Specific States

In some cases, EPA will determine that a state data set needs to be developed and analyzed. When directed by the EPA TOCOR, for a specific state, the contractor shall pull together existing data from universities, state personnel, or other known sources regarding nutrients, or both nutrients and biological conditions related to those nutrients. The contractor shall follow these steps regarding data development for states the EPA makes a determination that criteria are required:

- 1) *Prepare Criteria Development Plan* - The contractor shall prepare a criteria development plan for each State identified by EPA for promulgation. The criteria development plan shall include, but not be limited to, the following:
 - Identification of the waterbodies covered by the criteria,
 - Identification of the designated uses of those waterbodies,
 - Identification of data necessary to develop criteria,
 - Inventory of existing data,
 - Description of data gaps,
 - Plan for obtaining missing data,
 - Plan for organizing and analyzing data once obtained.
- 2) *Identify Waterbodies Covered by the Criteria* - The contractor shall use GIS, or other appropriate techniques to identify all waters covered by the EPA action. The contractor shall provide at least a written description, and if GIS technology is used, a map as well.
- 3) *Identification of Designated Uses* - The contractor shall identify the designated uses of the systems for which criteria will be developed, and shall provide a correlation between the waters identified under step “1)” above and the designated uses identified in this subtask.
- 4) *Inventory and Access Available Data* - The contractor shall provide technical support to identify sources of data relevant to the needed criteria, and shall work to obtain that data. This may include converting data into a format which is useable by EPA.
- 5) *Assess and Describe Data Gaps and Obtain Data* - Based on the inventory developed in step “4)” above, the contractor shall assess missing data, describe what it is, and develop a plan for obtaining as much as possible. Once approved by the TOCOR, the contractor shall work to obtain the data.
- 6) *Organize and Analyze Data* - The contractor shall organize data, including formatting into a single database (either Excel or Access dependent upon the state request), and shall run statistical analysis on the data appropriate to determine the strength of correlations between variables as requested in written technical direction from the TOCOR.
- 7) *Present Results of Analysis to EPA* - The contractor shall provide a written report, and a verbal presentation with graphics as needed, to convey the results of the analysis to EPA management. The contractor shall conduct additional analysis as needed, and as specified in written technical direction from the TOCOR.

Task 8 Analysis of State Nutrient Criteria Packages

The contractor shall plan to provide in-depth scientific reviews of the scientific defensibility of up to ten (10) state nutrient criteria proposals per year. The reviews shall be conducted by subject matter experts in the waterbody for which the nutrient criteria are proposed drawing from scientists who have expertise in disciplines listed under Task 4. The reviews shall consist of, but not be limited to, an analysis of:

- Study design that was used to determine the type of samples,
- Number of samples and the location and timing of sample events,
- Methods and procedures for sampling, storage, and transportation of samples,

- Method(s) for sample analysis used,
- Method(s) for data compilation and storage,
- Method(s) for data analysis,
- Method(s) and logic for which the criteria were developed, and
- Probability that the proposed criteria will protect the designated uses of the waterbody.

The contractor shall coordinate with the EPA TOCOR and EPA HQ nutrient liaison on the scope, depth, and timing of the technical review.

The contractor shall verbally present, via teleconference, the results of their review of the nutrient criteria proposal (water quality standards package) to the EPA TOCOR and EPA HQ nutrient liaison. The contractor shall document the notes of the teleconference and provide them to the TOCOR no more than five (5) days after the teleconference. The contractor shall coordinate with the EPA TOCOR and EPA HQ nutrient liaison on how the results of the review are documented and presented.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4. In addition, the contractor shall have firsthand experience reviewing federal, state, and Tribal regulatory and technical language for nutrient water quality standards.

Task 9 Technical Outreach and Communication

The contractor shall support the written and verbal communication of scientific and technical information that supports state and Tribal numeric nutrient criteria development. Products and services may include, but not be limited to the following:

Subtask 9A – Technical Fact Sheets and White Papers

The contractor shall support EPA's development of up to ten (10) draft and final technical fact sheets and white papers per year for state/Tribal requestors or other audiences regarding the development of scientifically defensible water quality standards packages for nutrients. EPA estimates that each fact sheet will range between one (1) and four (4) pages in length; white papers will range between five (5) and one-hundred (100) pages in length depending on the topic. A first draft of each paper shall be due within thirty (30) days after the EPA TOCOR provides details specific to the topic to the contractor. As topics are identified, the EPA TOCOR will provide as much advance notice as possible. The EPA TOCOR will provide the specific details on each paper topic, but some example topics for planning purposes may include, but are not limited to scientific and technical topics related to:

- Developing nutrient criteria in rivers/streams,
- Developing nutrient criteria in lakes/reservoirs,
- Developing nutrient criteria in estuaries/coastal areas,
- Protecting designated uses through numeric nutrient criteria,
- Protecting downstream resources through local numeric nutrient criteria, and

- Using biological indicators and assessment information to protect state designated uses from nutrient pollution.

The format shall include a brief introduction to the science relevant to that waterbody, then provide basic questions that EPA should consider when reviewing proposals for each specific waterbody. The EPA TOCOR will provide the contractor with a general guide that was developed for all waterbodies, and the contractor shall utilize waterbody specific subject matter experts to further delineate the guidelines.

Subtask 9B – Webinars

The contractor shall also support the EPA TOCOR in the development and presentation of up to ten (10) webinars per related to nutrient criteria development and implementation activities, as well as technical trainings, including, but not limited to the following topics: R statistical coding, GIS-based workflows, and satellite remote sensing data discovery. The contractor shall work with technical experts identified by the EPA TOCOR to develop the content and secure the means to broadcast it. Each webinar should be approximately 1.5 hours, and include the ability to receive questions from participants. The contractor should ensure there is capacity to reach a maximum audience of approximately five-hundred (500) people. The contractor shall announce the availability of webinars on the N-STEPS website and provide login information at least two weeks prior to the web-cast.

Subtask 9C – Circular

The contractor shall provide editorial support for the *N-STEPS Circular*, a bi-monthly communication product written by EPA HQ and regional nutrient criteria staff. The contractor shall provide support to EPA on proof-reading, digital design, and content upon request by the TOCOR.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4. In addition, the contractor shall have experience communicating topics and issues related to federal, state, and Tribal water quality criteria for nutrients, as well as firsthand experience communicating with federal, state, and Tribal water quality scientists, staff, and managers.

Task 10 Technical Meeting Support

The contractor shall support EPA in planning and holding up to ten (10) meetings per year to discuss numeric nutrient criteria for specific waterbodies of national significance or in specific States. The contractor shall follow the provision, EPAAR 1552.223-71 EPA Green Meetings and Conferences (May 2007), for the use of off-site commercial facilities for an EPA event, whether the event is a meeting, conference, training session, or for some other purpose. In accordance with EPAAR 1552.223-71 (a), “Environmentally preferable” (defined at FAR 2.101) shall be used when soliciting quotes or offers for meeting/conference services on behalf of the agency.

The contractor shall arrange travel only in accordance with the authority and limitations in the Section H clause titled “Approval of Contractor Travel” (i.e., use of contract funds to reimburse travel is strictly limited to logistical support for speakers, scientists, and experts who contribute directly to the contractor’s achievement of requirements specified in the Task Order as contractor or subcontractor employees.

The purpose of the meetings will be to discuss data characterizations and analyses similar to those described in the preceding tasks, and to discuss and develop approaches to pro-actively address nutrients issues.

These meetings may be in the form of an executive session with federal and state decision makers, or in a public forum. The goals of these meetings will be to support coordination on nutrient criteria development between EPA and its key partners in other federal agencies, states, Tribes, regions, and the public.

Prior to each scheduled meeting, the contractor shall provide the following support:

- Weekly planning teleconference calls with EPA staff. The contractor may be asked to prepare agendas for these calls, or to take and share notes on the meeting discussions.
- Prepare meeting materials. This shall include name tag, table tent, logistics sheet, list of EPA participants, final agenda, logistics information for participant use during lunch and dinner breaks, and an evaluation form.
- Provide support for revising and formatting background documents. The contractor shall be prepared to perform data analysis and formatting of indicators information for requested reports.
- Provide up to ten (10) technical experts. Those experts shall be experienced scientists and familiar with state or waterbody-specific nutrient criteria issues; be able to identify current issues for the agenda, make presentations on those topics; participate in discussions where the area of their expertise is discussed; and provide technical support in facilitating the meeting sessions and discussions.

During the meeting, the contractor shall provide the following support:

- Provide logistical support during the meeting. This includes designing, preparing, and putting signs in place to direct participants to the meeting room, staffing a registration table where participants can pick-up meeting materials, and ensuring audio-visual equipment is working and in place as scheduled.
- Provide a facilitator who shall support EPA during the executive session of the meeting. The facilitator shall keep time and make sure participants stick to the schedule, take notes on flip charts to capture major discussion points, and draw out participants on the agenda topics to ensure full participation and a complete discussion. The facilitator will also be prepared to provide summaries of daily discussions and a meeting overview during the closing session.
- Provide a note taker with laptop to take notes and transcribe the public portion of the meeting. The note taker shall be prepared to provide a brief summary of key

discussion points and action items to be presented to participants during the wrap-up of each portion of the meeting.

After the meeting, the contractor shall provide the following support:

- Prepare meeting summaries. The note taker shall submit both a draft executive summary and a public version of the meeting proceedings. The contractor shall also submit a draft summary of any meeting evaluations received after the meeting.
- Update the nutrient criteria web site to add the final agenda, the final public meeting summary, and any additional documents and other updates that resulted from the discussions at the meeting. In addition, the contractor shall be prepared to update or expand materials developed for or shared during the meeting. This may include a briefing package for new members; public service announcement; material for use by museums or learning centers; a “road show” presentation for updating stakeholders; issue papers, case studies, a fact sheet on agricultural practices, meeting proceedings, summary reports, and question-and-answer documents.
- Participate in at least one (1) teleconference call with selected participants of the meeting to discuss action items agreed upon during the meeting, and to discuss the need for revision of any meeting materials beyond the meeting notes.

Task 11 Technical Support to the National Nutrient Criteria Program

The contractor shall provide technical support to EPA’s HQ nutrient liaisons and regional nutrient coordinators through the exchange and development of technical support materials as requested by the TOCOR. The frequency of this support may vary, but it is anticipated that the contractor develops up to five (5) support documents per quarter (every three months). These materials may include, but are not limited to, exchanging scientific literature, scientific views, participating in scientific discussions related to the nutrient criteria program, the integration of biological assessment program elements into numeric nutrient criteria development and implementation (i.e., monitoring and assessment), support in responding to correspondence received by EPA (e.g., petitions, letters) or in the preparation of an original correspondence by EPA on the subject of nutrient pollution and nutrient criteria, and the development of technical tools and collection of environmental data to support nutrient criteria development. The contractor shall coordinate with the EPA TOCOR and EPA HQ nutrient liaison on the exchange of relevant materials.

These documents may also include the synthesis of contemporary technical approaches to numeric nutrient criteria development. The synthesis shall draw from the myriad technical and analytical methods EPA, states, and other scientists in the community have used in supporting numeric nutrient criteria development. They may include new or customized (i.e., state-specific or waterbody-specific) empirical stressor-response models, numerical water quality simulation models, or even reference conditions. The contractor shall assist EPA nutrient criteria program staff in developing the synthesis document in the following ways:

- Identification of relevant reference condition methods, empirical models, and numerical models in the peer-reviewed scientific literature or state regulatory program materials,
- Gathering and compiling information on these methods and models (e.g., model

documentation, scientific journal articles) and delivering them to EPA nutrient criteria staff for review,

- Gathering and compiling information on scientific studies regarding the source, transport, cycling, and fate of nutrients, and delivering those studies to EPA nutrient criteria staff for review,
- Drafting individual topical sections of a synthesis report and delivering drafts to EPA nutrient criteria staff,
- Technical editing and review of a synthesis report, and
- Preparation of the synthesis report for publishing either in hard copy or online at EPA's N-STEPS website

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4.

Task 12 Technical Support for Federal Rules for Numeric Nutrient Criteria

The contractor shall provide technical support to EPA's technical rulemaking team in the development of the Clean Water Act Section 304(a) numeric nutrient criteria. The contractor shall also provide technical support to EPA's technical rulemaking team in the development of numeric nutrient criteria under Clean Water Act Section 303(c), which prompts EPA's mandatory duty to promulgate criteria in the event that a state or Tribe as failed to do so.

The contractor shall support EPA's technical rulemaking team in the following areas:

1. The development of a technically- and scientifically-sound numeric nutrient criteria for surface waters as defined by the TOCOR.
2. The documentation of numeric nutrient criteria in a technical support document.
3. The drafting of preamble for the federal proposed rule (and notices of supplemental information, if applicable).
4. Coordination with the federal docket office in the acquisition of public comments in response to proposed rules or supplemental notices).
5. The construction of a comment-response database.
6. Review of public comments submitted to EPA.
7. Development of written responses submitted to EPA in response to EPA's proposed rule.
8. Data review and technical analysis in response to comments to EPA's proposed rule. Data review may involve the evaluation, documentation, or verification of new data submitted during the comment period. Technical analysis may result from the acquisition of new data submitted during the comment period, or may involve re-analysis of work already performed based on public comments. Technical analysis may include, but is not limited to, numerical model simulations, empirical model development, and other forms of computational methods (see related topic areas under Task 4).
9. Development of briefings and other technical communication products related the proposed rule.
10. Drafting a preamble to the final rule.
11. Drafting a technical support document for the final rule.
12. Providing technical support related to legal materials submitted to EPA in response to its final rule (e.g., complaints, briefs).
13. The contractor shall provide administrative support for rule development, which shall include, but not be limited to:
 - Support for public meetings including providing technical experts to present a non-technical explanation of EPA's proposed criteria, or preparation of written materials
 - Support to EPA for technical workshops with representatives from the public, state, or Tribe, including participating in technical discussions
 - Maintaining the docket for all technical materials, comments and responses to comments.

The Contractor shall refer any questions relating to the interpretation of EPA policy, guidance, or regulation to the TOCOR.

In order to carry out this task, the contractor shall have academic training and national expertise in the disciplines catalogued under Task 4. In addition, the contractor shall have experience developing federal rules on nutrient water quality criteria, such as 304(a) technical guidance, but specifically experience in federal promulgations of state water quality criteria. This includes experience drafting preambles, regulatory language, technical support documents, and reviewing and responding to public comments.

C. SCHEDULE OF BENCHMARKS & DELIVERABLES

The contractor shall provide any and all deliverables in an electronic format that is supported by EPA (See Contract Level PWS, Section 4, "Deliverables". With the exception of Tasks 1 and 2, the Tasks, Deliverables, and Due Dates listed in the table below are recurring for each option period.

Task	Deliverable	Due Date
1	1) Scoping Meeting 2) Written summary of scoping meeting	1) 14 days after task order award 2) 10 days after Scoping Meeting
2	Quality Assurance Project Plan	30 days after task order award
3	1) Written Expenditure reports by task 2) Verbal updates on task progress 3) Written Progress reports and invoices	1) Weekly 2) Weekly 3) Monthly
4	Responses to questions from States	Provide answers within 10 days after receipt of question(s), and post within three working days after approval.
5	Record of topics discussed during technical consultations.	Within 10 days of completion of technical consultations.
6	Written peer reviews	Within 10 days of completion of peer review.
7	Subtask 7A – Analysis Plan Subtask 7B – Report Subtask 7C – Data Sets 1) Criteria Development Plan 2) Waterbodies Covered 3) Designated Uses List 4) Inventory of Available Data 5) Data Gaps Analysis 6) Analyzed Data 7) Results of Analysis	Within 30 days after receipt of the request for analysis and data from the TOCOR. Within 60 days after agreement on the Analysis Plan by the TOCOR, Regional Coordinator and the State. 1) Within 15 days of EPA's determination to develop state-specific dataset 2) Within 30 days of EPA's determination to develop state-specific dataset 3) Within 45 days of EPA's determination to develop state-specific dataset 4) Within 60 days of EPA's determination to develop state-specific dataset 5) Within 75 days of EPA's determination to develop state-specific dataset 6) Within 90 days of EPA's determination to develop state-specific dataset 7) Within 105 days of EPA's determination to develop

Task	Deliverable	Due Date
		state-specific dataset
8	1) Provide written scientific review 2) Present results of review to EPA	1) Within 30 days of receipt of proposal 2) Within 30 days of completion of review
9	Subtask 9A – Fact Sheets and White Papers Subtask 9B – Webinars Subtask 9C – Circular	9A) Draft white papers will be due within 30 days after the EPA TOCOR provides the contractor with written details specific to the topic. 9B) Specified according to availability of State or Academic SME's who will be sub-contracted for specific topics; webcasts are announced at least two (2) weeks prior to airing. 9C) Within 10 days of receipt of new content
10	1) Draft evaluation form, nametags, and table tents 2) Final evaluation form, nametags, and table tents 3) Draft formatted agenda 4) Final formatted agenda 5) Complete arrangements for meeting space, audio/visual, and teleconference equipment 6) Facilitator for coordinating executive session of meeting 7) Summary of key issues/ideas recorded on flip charts and action items 8) Draft summaries of executive and public portions of meeting 9) Final summaries of executive and public portions of meeting 10) Electronic distribution of all PowerPoints and handouts used at meeting 11) Draft summary of meeting evaluations 12) Final summary of meeting evaluations 13) Draft web-site update with agenda and meeting summary in appropriate format 14) Final web-site update with agenda and meeting summary in appropriate format 15) Draft web-site update with follow-up documents in appropriate format 16) Final web-site update with follow-up documents in appropriate format	1) At least 10 working days before the meeting 2) Within five (5) days after receipt of TOCOR's comments 3) Within five (5) days after receipt of EPA's draft agenda 4) Within five (5) days after receipt of TOCOR's comments 5) Five (5) days prior to start of meeting 6) Identified at least 30 days prior to the meeting dates 7) Prior to meeting end. 8) 10 days after meeting 9) Five (5) days after receipt of EPA's comments 10) With delivery of Final meeting summaries 11) 10 days after meeting 12) Five (5) days after receipt of EPA's comments 13) Within 15 days after meeting 14) Within five (5) days after receipt of TOCOR's comments 15) Within five (5) after receipt of document(s) from TOCOR 16) Within five (5) days after receipt of TOCOR's comments
11	Supporting materials and draft content	Within 10 days of initial technical communication
12	1) Develop a technically- and scientifically-sound numeric nutrient criteria for surface waters as defined by the TOCOR. 2) Document numeric nutrient criteria in a technical support document. 3) Draft preamble for the federal proposed rule (and notices of supplemental information, if applicable). 4) Coordinate with the federal docket office in the acquisition of public comments in response to proposed rules or supplemental notices). 5) Construct a comment-response database. 6) Review of public comments submitted to EPA. 7) Develop written responses submitted to EPA in response to EPA's proposed rule. 8) Review data and technical analysis in response to comments to EPA's proposed rule. Develop briefings and other technical communication products related the proposed rule. 9) Draft a preamble to the final rule.	Milestones and due dates associated with federal rule efforts described under this task will be defined by the rule schedule, which will be set and managed by the Office of Water.

Task	Deliverable	Due Date
	<ul style="list-style-type: none"> 10) Draft a technical support document for the final rule. 11) Provide technical support related to legal materials submitted to EPA in response to its final rule (e.g., complaints, briefs). 12) Provide administrative support for rule development. 	

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. P00001		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-OW-18-00287	
6. ISSUED BY CPD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		7. ADMINISTERED BY (If other than Item 6) CODE		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 198549560		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004	
				10B. DATED (SEE ITEM 13) 03/29/2018	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
 Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
 See Schedule Net Increase: \$9,600.00

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 198549560

The purpose of this modification is to incrementally fund the Base Period and to fix a typo in section (c) of 1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984) for the total CPFF for Option Period 4.

TOCOR: Jacques Olilver Max Expire Date: 09/30/2022

LIST OF CHANGES:

Reason for Modification: Funding Only Action

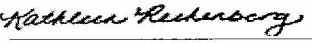
Obligated Amount for this Modification: \$9,600.00

New Total Obligated Amount for this Award: \$426,872.74

Incremental Funded Amount changed: from

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Kathleen Rechenberg	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 05/30/2018

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00001

PAGE 2 OF 5

NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>\$417,272.74 to \$426,872.74</p> <p>Obligated Amount for this Modification: \$9,600.00 Incremental Funded Amount changed from \$417,272.74 to \$426,872.74 FOB changed from Destination to</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 17-18-B-28H-201B53X28-2505-1828CHH024-001 Beginning FiscalYear 17 Ending Fiscal Year 18 Fund (Appropriation) B Budget Organization 28H Program (PRC) 201B53X28 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH024-001 Amount: \$9,218.76 Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-28A-000BD4X20-2505-1828CHH024-002 Beginning FiscalYear 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 28A Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH024-002 Amount: \$381.24 Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00001PAGE OF
3 5NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	Durham NC 27711 Delivery: 180 Days After Award Delivery Location Code: OW-OWOW-AWPD-MB AWPB-MB US EPA-OW-OWOW-AWPD-MB 1200 PENNSYLVANIA AVE., NW MC-4503-T WASHINGTON DC 20460 Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 04/01/2018 to 09/30/2018				

**1552.217-71 OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE
CONTRACT (APR 1984)**

The Government has the option to extend the term of this contract for four (4) additional period(s). If more than 60 days remain in the contract period of performance, the Government, without prior written notification, may exercise this option by issuing a contract modification. To exercise this option within the last 60 days of the period of performance, the Government must provide to the Contractor written notification prior to that last 60-days of the period. This preliminary notification does not commit the Government to exercising the option. Use of an option will result in the following contract modifications:

(a) The "Period of Performance" clause will be amended to cover a base period and option periods:

	Period Start Date	End Date
Base Period	04/01/2018	09/30/2018
Option Period 1	10/01/2018	09/30/2019
Option Period 2	10/01/2019	09/30/2020
Option Period 3	10/01/2020	09/30/2021
Option Period 4	10/01/2021	09/30/2022

(b) Paragraph (a) of the "Level of Effort" clause will be amended to reflect a new and separate level of effort of:

Period	Level of Effort
Base Period	7,000
Option Period 1	16,000
Option Period 2	16,000
Option Period 3	16,000
Option Period 4	16,000

(c) The "Estimated Cost and Fixed Fee" clause will be amended to reflect increased estimated costs and fixed fee for each option period as follows:

Period	Estimated Cost	Fixed Fee	Total CPFF
Option Period 1	(b)(4)	(b)(4)	\$1,873,129
Option Period 2			\$1,910,600
Option Period 3			\$1,948,108
Option Period 4			\$1,985,657

(d) If the contract contains "not to exceed amounts" for elements of other direct costs (ODC), those amounts will be increased as follows: N/A

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through 06/28/2018

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

Base Period (4/1/2018 -09/30/2018)

	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Task Order Award (Base Period)	(b)(4)		Fee
Mod 1			\$417,272.47
			\$9,600.00
Total Funded			\$426,872.47
Total Task Order			\$829,853.00
Balance Unfunded			\$402,980.53

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 5	
2. AMENDMENT/MODIFICATION NO. P00002		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
5. PROJECT NO. (If applicable)		6. ISSUED BY CPD		7. ADMINISTERED BY (If other than Item 6) CODE	
CPD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		9A. AMENDMENT OF SOLICITATION NO. 9B. DATED (SEE ITEM 11) 10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004 10B. DATED (SEE ITEM 13) 03/29/2018	
CODE 198549560		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

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Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or telegram which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by telegram or letter, provided each telegram or letter makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)
See Schedule
Net Increase: \$734,999.57

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation date, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Unilateral: 1552.217-71 - OPTION TO EXTEND THE TERM OF THE CONTRACT-COST-TYPE CONTRACT (APR 1984)

E. IMPORTANT: Contractor ☒ is not. ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 198549560

The purpose of this modification is to 1.) Exercise Option Period I, 2.) Incrementally fund Option Period I in the amount of \$734,999.57 as indicated on the attached recapitulation, and 3.) Change the Contract Specialist to Lisa Mitchell-Flinn and the Contracting Officer to Angela Lower.

TOCOR: Jacques Olilver Max Expire Date: 09/30/2022

LIST OF CHANGES:

Reason for Modification: Exercise an Option

Period Of Performance End Date changed from 30-SEP-18 to 30-SEP-19

Total Amount for this Modification: \$0.00

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Angela Lower	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA Angela Lower (Signature of Contracting Officer)	16C. DATE SIGNED 07/17/2018

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00002PAGE OF
2 5NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>New Total Amount for this Version: \$1,873,129.00 New Total Amount for this Award: \$8,547,347.00 Obligated Amount for this Modification: \$734,999.57 New Total Obligated Amount for this Award: \$1,161,872.31 Incremental Funded Amount changed: from \$426,872.74 to \$1,161,872.31</p> <p>Buyer changed from Kathleen Rechenberg to Lisa Mitchell-Flinn</p> <p>Contracting Officer changed from Kathleen Rechenberg to Angela Lower</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 - Option Period I Obligated Amount for this Modification: \$734,999.57 Incremental Funded Amount changed from \$0.00 to \$734,999.57 Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-28H-000BD4X20-2505-1828CHH027-001 Beginning FiscalYear 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 28H Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH027-001 Quantity: 0 Amount: \$173,496.57 Percent: 9.26239 Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00002PAGE OF
3 5NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Durham NC 27711</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-28H-000BD4X20-2505-1828CHH033-001 Beginning Fiscal Year 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 28H Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH033-001 Quantity: 0 Amount: \$561,503.00 Percent: 29.97674 Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Delivery: 180 Days After Award Delivery Location Code: OW-OWOW-AWPD-MB AWPB-MB US EPA-OW-OWOW-AWPD-MB 1200 PENNSYLVANIA AVE., NW MC-4503-T WASHINGTON DC 20460</p> <p>Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 10/01/2018 to 09/30/2019 All other terms and conditions remain unchanged.</p>				

Section B - Supplies or Services/Prices was revised as follows.

Summary of Clause Changes:

Clause EPA-B-16-102 is incorporated as follows:

Local Clauses EPA-B-16-102 ESTIMATED COST AND FIXED FEE

OPTION PERIOD I

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee is (b)(4)

(c) The total estimated cost and fixed fee is \$1,873,129.00.

Clause EPA-B-32-101 is incorporated as follows:

Local Clauses EPA-B-32-101 LIMITATION OF FUNDS NOTICE

(a) Severable services may be incrementally funded. Non-severable services shall not be incrementally funded. Pursuant to clause 52.232-22/Limitation of Funds, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of fixed fee. The amount allotted for costs is estimated to cover the contractor's performance through 2/21/2019.

(b) When the contract is fully funded as specified in clause EPA-B-16-102/ Estimated Cost and Fixed Fee, then clause 52.232-20/Limitation of Cost shall become applicable.

(c) Recapitulation of Funds

Option Period 1 (10/1/2018 -09/30/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Mod 2	(b)(4)		\$734,999.57
Total Funded			\$734,999.57
Total Task Order			\$1,873,129.00
Balance Unfunded			\$1,138,129.43

Section G - Contract Administration Data was revised as follows.

Summary of Clause Changes:

Clause EPA-G-42-101 is incorporated as follows:

Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officer's Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Jacques Oliver; oliver.jacques@epa.gov

Alternate Task Order COR (Alt COR): Damon Highsmith; Highsmith.damon@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Angela Lower; lower.angela@epa.gov

Contract Specialist: Lisa Mitchell-Flinn; mitchell-flinn.lisa@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 3	
2. AMENDMENT/MODIFICATION NO. P00003		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO.	
5. PROJECT NO. (If applicable)		6. ISSUED BY CP0D US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: NWD Cincinnati OH 45268		7. ADMINISTERED BY (If other than Item 6) CODE	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 198549560		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004	
				10B. DATED (SEE ITEM 13) 03/29/2018	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
X	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
	D. OTHER (Specify type of modification and authority)

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 198549560

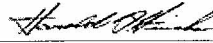
The purpose of this modification is to name Galen Kaufman as the Alternate Contracting Officer's Representative.

TOCOR: Jacques Olilver Max Expire Date: 09/30/2022 Invoice Approver: Jacques Oliver Alt

Invoice App: Galen Kaufman

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Harold D. Hincks	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 12/19/2018

Previous edition unusable

STANDARD FORM 30 (REV. 11/2016)
Prescribed by GSA FAR (48 CFR) 53.243

NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p>www2.epa.gov/financial/contracts</p> <p>Durham NC 27711</p> <p>Period of Performance: 10/01/2018 to 09/30/2019</p> <p>All other terms and conditions remain unchanged.</p>				

Section G - Contract Administration Data was revised as follows.

Summary of Clause Changes:

Clause EPA-G-42-101 is incorporated as follows:

Local Clauses EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officer's Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Jacques Oliver; oliver.jacques@epa.gov; 202-566-0630

Alternate Task Order COR (Alt COR): Galen Kaufman; kaufman.galen@epa.gov; 202-566-1971

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Angela Lower; lower.angela@epa.gov; 513-487-2036

Contract Specialist: Lisa Mitchell-Flinn; mitchell-flinn.lisa@epa.gov; 513-487-2852

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 4	
2. AMENDMENT/MODIFICATION NO. P00004		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-OW-19-00456	
5. PROJECT NO. (If applicable)		6. ISSUED BY CAD		7. ADMINISTERED BY (If other than Item 6) CODE	
CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001					
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		(x)		9A. AMENDMENT OF SOLICITATION NO.	
				9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004	
				10B. DATED (SEE ITEM 13) 03/29/2018	
CODE 198549560		FACILITY CODE			

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

☐ The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers ☐ is extended. ☐ is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

Net Increase: \$900,000.00

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Unilateral - 1552.217-71; Option to Extend the Term of the Contract

E. IMPORTANT: Contractor ☒ is not ☐ is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 198549560

The purpose of this modification is to 1) Exercise Option Period 2; 2) Provide incremental funding of \$900,000.00 to Option Period 2 (\$ (b)(4) to cost and \$ (b)(4) to fee) and; 3) Revise EPA-G-42-101 Contract Administration Representatives.

TOCOR: Jacques Oliver Max Expire Date: 09/30/2022 Invoice Approver: Jacques Oliver Alt

Invoice App: Galen Kaufman

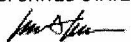
LIST OF CHANGES:

Reason for Modification: Exercise an Option

Obligated Amount for this Modification: \$900,000.00

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print)		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence Edelmann	
15B. CONTRACTOR/OFFEROR (Signature of person authorized to sign)	15C. DATE SIGNED	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 07/10/2019

Previous edition unusable

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00004PAGE OF
2 4NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Incremental Funded Amount changed: from \$1,161,872.31 to \$2,061,872.31</p> <p>Buyer changed from: Lisa Mitchell-Flinn; to: Lawrence Edelmann</p> <p>Contracting Officer changed from: Harold D. Hincks; to: Lawrence Edelmann</p> <p>CHANGES FOR LINE ITEM NUMBER: 3 Obligated Amount for this Modification: \$900,000.00 Incremental Funded Amount changed from \$0.00 to \$900,000.00 Exercised option</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 19-20-B-28H-000BD4X20-2505-1928CHH024-001 Beginning Fiscal Year 19 Ending Fiscal Year 20 Fund (Appropriation) B Budget Organization 28H Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1928CHH024-001 Quantity: 0 Amount: \$900,000.00 Percent: 0 Subject To Funding: N Payment Address: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Continued ...</p>				

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00004

PAGE OF
3 4

NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Payment:</p> <p>RTP Finance Center</p> <p>US Environmental Protection Agency</p> <p>RTP-Finance Center (AA216-01)</p> <p>109 TW Alexander Drive</p> <p>www2.epa.gov/financial/contracts</p> <p>Durham NC 27711</p> <p>Period of Performance: 10/01/2018 to 09/30/2020</p> <p>.</p> <p>All other terms and conditions remain unchanged.</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 2

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through 03/20/2020.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C17-046; TO 4			
Option Period 2 (10/1/2018 -09/30/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Modification 4	(b)(4)	(b)(4)	\$900,000.00
Total Funded			\$900,000.00
Total Task Order			\$1,910,600.00
Balance Unfunded			\$1,010,600.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 2

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is \$1,910,600.00

LOCAL CLAUSE EPA-G-42-101 CONTRACT ADMINISTRATION REPRESENTATIVES

Task Order Contracting Officers Representatives (CORs)/Project Officers for this contract are as follows:

Task Order COR (TOCOR): Jacques Oliver, oliver.jacques@epa.gov

Alternate Task Order COR (Alt TOCOR): Galen Kaufman, kaufman.galen@epa.gov

Contracting Officials responsible for administering this contract are as follows:

Contracting Officer: Lawrence Edelmann, US EPA. Cincinnati Acquisition Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268; edelmann.lawrence@epa.gov

Contract Specialist: Lawrence Edelmann, US EPA. Cincinnati Acquisition Division, 26 W MLK Dr MS W136A, Cincinnati, Ohio 45268; edelmann.lawrence@epa.gov

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES 1 4	
2. AMENDMENT/MODIFICATION NO. P00005		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. See Schedule	
6. ISSUED BY CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		7. ADMINISTERED BY (If other than Item 6) CODE		5. PROJECT NO. (If applicable)	
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		(x)		9A. AMENDMENT OF SOLICITATION NO.	
CODE 198549560		FACILITY CODE		9B. DATED (SEE ITEM 11)	
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004	
				10B. DATED (SEE ITEM 13) 03/29/2018	

11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS

The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers is extended. is not extended.
Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.

12. ACCOUNTING AND APPROPRIATION DATA (If required)

See Schedule

13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.

CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:
X	D. OTHER (Specify type of modification and authority) Bilateral - 52.232-22; Limitation of Funds

E. IMPORTANT: Contractor X is not is required to sign this document and return _____ copies to the issuing office.

14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.)

DUNS Number: 198549560

The purpose of this modification is to: 1) Shift \$(b)(4) from the fee pool to the cost pool in Base Period and; 2) Shift \$(b)(4) from the fee pool in Base Period to the cost pool in Option Period 1.

TOCOR: Jacques Oliver Max Expire Date: 09/30/2022 Invoice Approver: Jacques Oliver Alt

Invoice App: Galen Kaufman

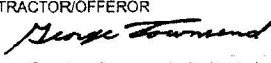

LIST OF CHANGES:

Reason for Modification: Funding Only Action

CHANGES FOR LINE ITEM NUMBER: 1

Continued ...

Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.

15A. NAME AND TITLE OF SIGNER (Type or print) George Townsend, Vice President		16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Lawrence Edelmann	
15B. CONTRACTOR/OFFEROR  (Signature of person authorized to sign)	15C. DATE SIGNED 7/16/2019	16B. UNITED STATES OF AMERICA  (Signature of Contracting Officer)	16C. DATE SIGNED 07/16/2019

Previous edition unusable

CONTINUATION SHEET

REFERENCE NO. OF DOCUMENT BEING CONTINUED
EP-C-17-046/0004/P00005

PAGE 2 OF 4

NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Obligated Amount for this Modification: -\$538.36 Incremental Funded Amount changed from \$426,872.74 to \$426,334.38</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-28H-000BD4X20-2505-1828CHH014-001 Amount changed from \$100,000.00 to \$99,461.64</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: \$538.36 Incremental Funded Amount changed from \$734,999.57 to \$735,537.93</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-28H-000BD4X20-2505-1828CHH014-001 Beginning Fiscal Year 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 28H Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH014-001 Quantity: 0 Amount: \$538.36 Percent: .02874 Subject To Funding: N Payment Address: Payment: RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711 Period of Performance: 04/01/2018 to 09/30/2020 All other terms and conditions remain unchanged.</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – BASE PERIOD

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **9/30/2018**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-046; TO 4; P00005			
Base Period (04/01/2018 -09/30/2018)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Task Order Award (Base Period)	(b)(4)	(b)(4)	\$417,272.74
Mod 1			\$9,600.00
Mod 5			(\$538.36)
Total Funded			\$426,334.38
Total Task Order			\$829,853.00
Balance Unfunded			\$403,518.62

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – BASE PERIOD

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is **\$829,853.00**

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through **02/20/2019**.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-046; TO 4; P00005			
Option Period 1 (10/01/2018 -09/30/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Mod 2	(b)(4)	(b)(4)	\$734,999.57
Mod 5			\$538.36
Total Funded			\$735,537.93
Total Task Order			\$1,873,129.00
Balance Unfunded			\$1,137,591.07

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

- (a) The estimated cost of this contract is (b)(4)
- (b) The fixed fee (b)(4)
- (c) The total estimated cost and fixed fee is **\$1,873,129.00**

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT		1. CONTRACT ID CODE		PAGE OF PAGES									
				1 5									
2. AMENDMENT/MODIFICATION NO. P00006		3. EFFECTIVE DATE See Block 16C		4. REQUISITION/PURCHASE REQ. NO. PR-CAD-19-00147									
6. ISSUED BY CAD US Environmental Protection Agency 26 West Martin Luther King Drive Mail Code: W136 Cincinnati OH 45268-0001		7. ADMINISTERED BY (If other than Item 6) CODE		5. PROJECT NO. (If applicable)									
8. NAME AND ADDRESS OF CONTRACTOR (No., street, county, State and ZIP Code) TETRA TECH, INC. Attn: George Townsend 10306 EATON PL STE 340 FAIRFAX VA 22030		(x)		9A. AMENDMENT OF SOLICITATION NO.									
				9B. DATED (SEE ITEM 11)									
		x		10A. MODIFICATION OF CONTRACT/ORDER NO. EP-C-17-046 0004									
				10B. DATED (SEE ITEM 13) 03/29/2018									
CODE 198549560		FACILITY CODE											
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS													
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning _____ copies of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or electronic communication which includes a reference to the solicitation and amendment numbers. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or electronic communication, provided each letter or electronic communication makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.													
12. ACCOUNTING AND APPROPRIATION DATA (If required) See Schedule													
13. THIS ITEM ONLY APPLIES TO MODIFICATION OF CONTRACTS/ORDERS. IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14.													
<table border="1" style="width:100%; border-collapse: collapse;"> <tr> <td style="width:10%;">CHECK ONE</td> <td>A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.</td> </tr> <tr> <td></td> <td>B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).</td> </tr> <tr> <td></td> <td>C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:</td> </tr> <tr> <td style="text-align: center;">X</td> <td>D. OTHER (Specify type of modification and authority) Bilateral - 52.232-22, Limitation of Funds; Supplemental Agreement for work within scope</td> </tr> </table>						CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.		B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).		C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:	X	D. OTHER (Specify type of modification and authority) Bilateral - 52.232-22, Limitation of Funds; Supplemental Agreement for work within scope
CHECK ONE	A. THIS CHANGE ORDER IS ISSUED PURSUANT TO: (Specify authority) THE CHANGES SET FORTH IN ITEM 14 ARE MADE IN THE CONTRACT ORDER NO. IN ITEM 10A.												
	B. THE ABOVE NUMBERED CONTRACT/ORDER IS MODIFIED TO REFLECT THE ADMINISTRATIVE CHANGES (such as changes in paying office, appropriation data, etc.) SET FORTH IN ITEM 14, PURSUANT TO THE AUTHORITY OF FAR 43.103(b).												
	C. THIS SUPPLEMENTAL AGREEMENT IS ENTERED INTO PURSUANT TO AUTHORITY OF:												
X	D. OTHER (Specify type of modification and authority) Bilateral - 52.232-22, Limitation of Funds; Supplemental Agreement for work within scope												
E. IMPORTANT: Contractor <input type="checkbox"/> is not <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copies to the issuing office.													
14. DESCRIPTION OF AMENDMENT/MODIFICATION (Organized by UCF section headings, including solicitation/contract subject matter where feasible.) DUNS Number: 198549560 The purpose of this modification is to: 1) Shift \$200,000.00 from Option Period 1 to Option Period 2 (\$ (b)(4) to cost and (b)(4) to fee) and; 2) Revise the period of performance dates for Option Period 1, Option Period 2, Option Period 3 and Option Period 4 as follows: Option Period 1: "10/01/2018 - 09/30/2019" to "10/01/2018 - 09/29/2019". Option Period 2: "10/01/2019 - 09/30/2020" to "09/30/2019 - 09/29/2020". Option Period 3: "10/01/2020 - 09/30/2021" to "09/30/2020 - 09/29/2021". Option Period 4: "10/01/2021 - 09/30/2022" to "09/30/2021 - 09/29/2022". Continued ... Except as provided herein, all terms and conditions of the document referenced in Item 9 A or 10A, as heretofore changed, remains unchanged and in full force and effect.													
15A. NAME AND TITLE OF SIGNER (Type or print) George Townsend, Vice President			16A. NAME AND TITLE OF CONTRACTING OFFICER (Type or print) Harold D. Hincks										
15B. CONTRACTOR/OFFEROR <i>George Townsend</i> (Signature of person authorized to sign)		15C. DATE SIGNED 9/26/2019		16B. UNITED STATES OF AMERICA <i>Harold D. Hincks</i> (Signature of Contracting Officer)									
				16C. DATE SIGNED 26 Sep 19									

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED EP-C-17-046/0004/P00006	PAGE 2 OF 5
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NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>TOCOR: Jacques Oliver Max Expire Date: 09/30/2022 Invoice Approver: Jacques Oliver Alt Invoice App: Galen Kaufman LIST OF CHANGES:</p> <p>Reason for Modification: Funding Only Action Period Of Performance End Date changed from 30-SEP-20 to 29-SEP-20 Total Amount for this Modification: \$0.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 2 Obligated Amount for this Modification: -\$200,000.00 Incremental Funded Amount changed from \$735,537.93 to \$535,537.93 End Date changed from 30-SEP-19 to 29-SEP-19</p> <p>CHANGES FOR LINE ITEM NUMBER: 3 Obligated Amount for this Modification: \$200,000.00 Incremental Funded Amount changed from \$900,000.00 to \$1,100,000.00 Start Date changed from 01-OCT-19 to 30-SEP-19 End Date changed from 30-SEP-20 to 29-SEP-20</p> <p>CHANGES FOR ACCOUNTING CODE: 18-19-B-28H-000BD4X20-2505-1828CHH033-001 Amount changed from \$561,503.00 to \$361,503.00</p> <p>CHANGES FOR LINE ITEM NUMBER: 4 Start Date changed from 01-OCT-20 to 30-SEP-20 End Date changed from 30-SEP-21 to 29-SEP-21</p> <p>CHANGES FOR LINE ITEM NUMBER: 5 Start Date changed from 01-OCT-21 to 30-SEP-21 End Date changed from 30-SEP-22 to 29-SEP-22</p> <p>NEW ACCOUNTING CODE ADDED: Account code: 18-19-B-28H-000BD4X20-2505-1828CHH033-001 Beginning Fiscal Year 18 Ending Fiscal Year 19 Fund (Appropriation) B Budget Organization 28H Program (PRC) 000BD4X20 Budget (BOC) 2505 Job # (Site/Project) Cost Organization DCN-LineID 1828CHH033-001 Quantity: 0 Continued ...</p>				

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED EP-C-17-046/0004/P00006	PAGE	OF
		3	5

NAME OF OFFEROR OR CONTRACTOR
TETRA TECH, INC.

ITEM NO. (A)	SUPPLIES/SERVICES (B)	QUANTITY (C)	UNIT (D)	UNIT PRICE (E)	AMOUNT (F)
	<p>Amount: \$200,000.00 Percent: 10.46792 Subject To Funding: N Payment Address:</p> <p>Payment:</p> <p>RTP Finance Center US Environmental Protection Agency RTP-Finance Center (AA216-01) 109 TW Alexander Drive www2.epa.gov/financial/contracts Durham NC 27711</p> <p>Period of Performance: 04/01/2018 to 09/29/2020</p> <p>All other terms and conditions remain unchanged.</p>				

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 1

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through 01/12/2019.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-046; TO 4; P00006			
Option Period 1 (10/01/2018 -09/29/2019)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Mod 2	(b)(4)	(b)(4)	\$734,999.57
Mod 5			\$538.36
Mod 6			(\$200,000.00)
Total Funded			\$535,537.93
Total Task Order			\$1,873,129.00
Balance Unfunded			\$1,337,591.07

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 1

(a) The estimated cost of this contract is (b)(4)

(b) The fixed fee (b)(4)

(c) The total estimated cost and fixed fee is \$1,873,129.00

LOCAL CLAUSES EPA-B-32-101 LIMITATION OF FUNDS NOTICE – OPTION PERIOD 2

(a) Pursuant to the Limitation of Funds clause, incremental funding in the amount of (b)(4) is allotted to cover estimated cost. Funding in the amount of (b)(4) is provided to cover the corresponding increment of base fee. The amount allotted for costs is estimated to cover the contractor's performance through 04/27/2020.

(b) When the contract is fully funded (i.e. the sum of the total estimated cost, base fee, award fee pool available for award, and award fee awarded, as set forth in the schedule of this contract), the Limitation of Cost clause shall become applicable.

(c) Recapitulation of Funds

EP-C-17-046; TO 4; P00006			
Option Period 2 (09/30/2019 -09/29/2020)			
	Estimated Cost	Fixed Fee	Cost Plus Fixed Fee
Mod 4	(b)(4)	(b)(4)	\$900,000.00
Mod 6			\$200,000.00
Total Funded			\$1,100,000.00
Total Task Order			\$1,910,600.00
Balance Unfunded			\$810,600.00

LOCAL CLAUSES EPA-B-16-102 ESTIMATED COST AND FIXED FEE – OPTION PERIOD 2

- (a) The estimated cost of this contract is (b)(4)
- (b) The fixed fee (b)(4)
- (c) The total estimated cost and fixed fee is **\$1,910,600.00**